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FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I. BOSTON, JANUARY, 1836. NO. 9.

PUBLISHED MONTHLY BY
GEORGE C. BARRETT,
51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN, Editor.

Fifty cents per year—twelve copies for five dollars—always in advance.

☞ Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, JANUARY, 1836.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

Extracts from "*Notes on the Growth and Manufacture of Silk in the United States.*" By M. Genet, formery Embassador from France to the United Statles.

"It is a matter of fact that the planting and attending to mulberry trees, either in orchards or hedges is the hardest part of the silk culture; and that the rest of the process, which occupies only the fifty or sixty days to which the life of the silk worm is limited, may be conducted by females, children, and old or invalid men, unable to perform hard labor on any farm or plantation, and will accordingly offer a new gain without impairing the other sources of income. It is proper for legislators to consider, that the more the science of mechanics, applied to manufactures substitutes machines for manual labor, the more it is useful to supply the females of our country, whose number is everywhere superior to the number of men with the means of supporting themselves, or the families that support them, and that no occupation besides the spinning of flax, and its manufactures, not yet entirely conquered by mechanics, seems to be better calculated to employ the time of that supernumerary part of the population than the culture of silk.

"It will certainly be a great while before a sufficient quantity of silk can be raised in the United States to become an article of exportation, or to supply even the few silk manufactures of our own country, which now import the whole of their materials. But, if the Italians, who first cultivated the silk worms in the year 1455, from seeds brought with a great deal of trouble and care to Rome, by two missionary Monks returned from the East Indies, had been indifferent about the domestic growth of silk, valued at that time almost as much as gold; and if the French, the English, and all other European nations who have acquired wealth by the culture of that article had not by bounties and rewards promoted at first its introduction, and afterwards protected its extension by various laws, no other silks, to this day, would be worn, but those imported from China and the East Indies. Comparatively speaking, we are now in America, in reference to silk, several centuries behind the other manufacturing nations. That commodity, whether we import it from India, China, or Europe, is for us an immense absorbant of our substance, and the sooner we prepare the means of stopping, effectually, that drain through which a great quantity of bullion escapes from the vaults of our banks, the better it will be for the progress of our wealth and prosperity at home.

"The growth of raw silk in a merchantable state, requires hardly any capital, and it occupies but very little land and very little room.

"An ounce of seed of the silk worm will produce 40,000 worms that will consume one thousand pounds of white mulberry leaves, easily supplied by fifty grown trees, or two hundred small ones, between two and three years old, from the seed or from the slips; and the produce in silk will be upon an average, twelve pounds of drawn raw silk, allowing all contingencies.

"A small hedge that will occupy the twentieth part of an acre, being planted with bushes not more than three years old, as aforesaid, will supply and accommodate 100,000 worms, the produce of which will be thirty pounds of raw drawn silk, and if the whole acre is planted in the same way, the produce will be six hundred pounds; which

merely spun into sewing silk, would amount, at the present price of American sewing silk in Albany, to three dollars per pound, sixty feet to the skein, and one dollar and fifty cents per thirty feet.

"If the worms are housed instead of being raised in the open air it is reckoned that a square foot will contain, with ease, one hundred and ten worms in their maturity; accordingly a shelf twenty feet long and three broad, will contain 6,600 worms, its surface being equal to sixty feet, and a set of such shelves will accommodate the 40,000 worms, produced by a single ounce of seed. These sets of shelves may be multipled in the same room, observing only to leave three feet opening between them, in order to enable the attendants to nurse the worms. Besides such a a room, in which several millions of worms may be raised, it is sufficient to have an adjacent room or hovel to put the worms into when they want to make them ball and spin their silk; so that two rooms will be sufficient to spin an immense quantity of silk.

QUALITY OF MULBERRY LEAVES.

The Abbe Rozier, a celebrated French writer in a work entitled "Cours Complet d'Agriculture," in treating of the mulberry, &c., observes that "The quality of the leaves of the mulberry is affected by various circumstances. 1. The age of the plants. The leaves of a young tree are more watery, the juices less concentrated than in an old one.

The exposure has also great effect. Trees planted in a northern exposure or aspect are always below modiocrity, or inferior in quality; the juices are too watery, and the worms do not thrive so well on them. Those raised on hill sides with southern exposure are preferable to those grown on plains.

"The berries gathered for seed cannot be *too ripe*. When they are just barely fit for eating, not more than fourteen per cent. will vegetate. When fully ripe and ready to fall more than half the seed have usually grown; if left till dry, nearly all have succeeded. The mode of obtaining the seed is to dry the berries, and when wanted, to rub out the seed, and fan away the dried pulp."

As to the time of sowing: In the most southern parts of France they sow as soon as the seed is ripe, but the most usual course is to sow the following spring. In France, according to the climate of different provinces, in February, March, and April. In New England we cannot sow till April or May.

5. The manner of sowing. — They sometimes sow in the spot where the young mulberry is to grow for the first three years; but they prefer sowing them in boxes about three feet long, and nine inches deep. The reason assigned is, that they are more easily watered and sheltered against frost. They remove them from the boxes into rows in a nursery, which is done without injury to the roots, by taking off one of the sides of the box. Rozier remarks upon the practice of rubbing the berries on a hair rope and then burying it in the earth, that it is an useless complication of labor.

The French seem to be in the constant practice of grafting their mulberries. No satisfactory reason seems to be assigned for this certainly expensive process; but as they are very familiar with the cultivation, no doubt experience must have shown them an advantage, or the French, being habitual economists, would not have adopted it.

It was formerly the practice in France to plant out the mulberry as standards, and to suffer them to attain a considerable size, taking care, however, so to manage the pruning as to keep all the limbs within the reach of gathering ladders. The practice is of late much changed. It was observed, says Rozier, that the young plants in nurseries put forth their leaves much sooner than the standard trees, and the necessity of obtaining early food for the young insects obliged the cultivators to provide themselves with a *certain number* of mulberries in the bush or shrubby state.

From these first experiments arose the prevalent practice of raising dwarf mulberries extensively, and also of surrounding their fields with mulberry hedges. It is said that the produce of an acre in dwarf mulberries is much greater than one in large trees, the distance between the plants being so much less, so that the number of dwarfs may be eight times as great. This is admitted to be true at first, but some cultivators deny that it continues to be so after the standard trees have attained their full size. The benefits of the dwarf cultivation are thus briefly stated:—1st. Women and children can gather the leaves without danger, and much quicker than the most experienced gatherers could on large trees. 2d. The proprietor is much more speedily repaid his advances. 3d. The dwarf mulberries put forth their leaves earlier, a valuable quality, as the more early the worms are produced the better. 4th. Dwarf trees will succeed in situations in which standards will not. 5th. Their leaves are quite as good as those of the others, but the leaves of young plants should be given to newly hatched worms, and those of the older to the more mature.

INFLUENCE OF SILK CULTURE ON HEALTH.

In urging upon the community, and especially farmers and their wives and daughters, to engage

in the culture of silk, fidelity and good faith requires of us that we do not conceal the fact, that some antagonist writers on the subject, have maintained that the atmosphere of a cocoonery is injurious to the human constitution, and the generator of disease and death. They have claimed, and truly, that the pestilential air of a cocoonery, when a close room is occupied as such, is deleterious to the health of the feeders, and especially to infants that are nursed by mothers or nurses thus employed. In proof of this they have said that for many years it was noticed that large numbers of infants died annually in the silk growing countries, particularly at Tiers, Narbonne, Castrie, &c. where multitudes of silk worms are fed by mothers; and hence they have concluded, and rationally, that the mother communicates a fatal disease to her infant in the impurities of the nutriment on which it subsists. It has also been remarked that simple wounds, whether on men or women thus employed, have become ulcers not only painful but incurable.

These disastrous consequences, which were formerly of frequent occurrence, have been carefully investigated, and their causes satisfactorily ascertained. It was found that they invariably occurred in the establishments of the opulent, while those of the poor were wholly exempt from them. In the poorest villages, where the crevices in the covering of the huts of the inhabitants furnished ample ventilators, large and certain crops were found to be made; while in the close covered dwellings of the rich, they were rarely found. In the huts of the poor it was found that the inmates were in good health, even to the infants, while the rich were diseased and their nurslings sick and dying.

These facts furnish the most indubitable evidence that both the worms and their attendant's will contract disease from the exhalations of the excrements and litter, if they be suffered to remain in a close room even for a few hours — and, on the contrary, they as satisfactorily prove, that if they be regularly and seasonably removed, and the room well ventilated, both will enjoy good health. It is wisely ordered in the economy of Providence, that cleanliness and pure air are as essential to the health of the worm as to the health of its attendant — and hence what contributes to the comfort and enjoyment of the one in like manner does to the other.

The preparation of food for the worm is certainly a very healthy employment; and, with no more care than is necessary for the health of the worm, the duties of the cocoonery may be made equally so. The French and Italian Culturists ridicule such an attempt to alarm them with fears on this subject; and Mr de Turk, speaking with respect to the culture of silk in Prussia says many who have been engaged in it have reached the age to which man ever attains. The same is true of the silk culturists in Bavaria. Unwilling, therefore, as we should be, to be instrumental in introducing a business which would require a commutation of health for wealth, we can without any misgivings, say, no person need be deterred from engaging in the culture of silk on account of the influence upon health.—*Silk Culturist.*

NATIVE SILK WORM.

If the statements contained in a work published in London in 1655, by John Streeter, entitled "The Reformed Virginia Silk Worm," &c., are entitled to credit, it would seem the forests of Virginia in the days of its infancy, were inhabited by a species or variety of the silk worm, of a very extraordinary character and habit. The book purports to contain the discovery, by a young English lady, in 1652, of a method of feeding silk worms, in the woods, on the mulberry trees, in Virginia, without shelter from the weather, or much assistance, protection or attention from the planters. From the description which the writer gives of the cocoon, and the various trees and shrubs on which the worm fed and made silk, we should think the account needed confirmation were it not known that the climate of Virginia is remarkably adapted to the constitution of the silk worm. That the worm in some parts of Virginia, as well as in China, will live in the open air, and make its cocoon upon the tree, we have no doubt; but we confess ourselves rather skeptical as to the size of the cocoons of which the writer speaks. If, however, there ever were silk worms of this character in the forests of Virginia, it is to be hoped that the race has not become extinct; and it is certainly worthy the attention of naturalists in that region to ascertain the fact. We give the writers description of the cocoon and habit of the worm in his own language and orthography, premising the remark that "silk bottome" is synonomous with cocoon.

"The Silk Bottome of the naturall Worme in *Virginia*, found there in the woods, is ten Inches about, and six Inches in length to admiration; and whereas ours in *Europe* have their Sleave and Loose Silke on the outside; and then in a more closer covering they intombe themselves. These rare Worms, before they inclose themselves up, fill with Silke, the great emptinesse, and afterwards inclose themselves in the middle of it, so they have a double Bottom. The loose Sleave Silk is all on the outside of this compass, for if that were reckoned in, the compass of the Bottom would far exceed this proportion; But this is sufficient to be the wonder of the whole World! to glory of the Creator, and exaltation of VIRGINIA."—*Silk Culturist.*

(From the Baltimore Farmer.)

MIXED CULTIVATION OF POTATOES.

We are indebted to a subscriber in Washington county, Va. for the subjoined communication, detailing a series of experiments in the raising of potatoes and corn as a crop in common. We thank him for his favor; it is just such an essay as is most valuable to agriculturists generally. Practical results are always preferable to speculation and theory, because nothing being left to uncertainty, the husbandman is encouraged to go on and follow the example of his successful neighbor. We could wish that others would tread in the footsteps of our Washington correspondent, and give us statements of their experiments; the interests of the cultivators of the soil would be thereby greatly promoted.

To the Editor of the Farmer and Gardener :—

Sir—I have noticed in the Farmer and Gardener of the 17th inst. a description of a sample of some fine potatoes presented to you, and also quotations of other samples for inspection, the weight of the heaviest of which is five lbs. I would state for the information of farmers, that I have been a potato raiser for many years; and, perhaps, it may be beneficial to others engaged in their culture to understand my method of raising as also the quantity I have raised for several years. In 1830, I made an experiment on a new plan in planting a part of my crop: planting *corn* and *potatoes* on the same land. I planted my corn six feet east and west, and a row of potatoes between each alternate row, and when I gathered my crop, I was so well pleased with the plan, that I have planted in the same mode ever since, and have succeeded in always producing good crops, except one year, which was a failure from a severe drought. In 1831, I had sixteen acres in corn at nine feet distance, and potatoes in the centre of the corn rows, my crop was fine: on the sixteen acres the product of potatoes was 2500 bushels, corn 25 1-2 bushels to the acre; the potatoes, taken altogether, the largest I have ever raised: one weighed 5 pounds, 9 ounces, a number of other, 4 pounds and upwards; and I have no doubt but there could have been from 80 to 100 bushels taken from my crop that year, that would have averaged 3 pounds. I have come to the conclusion, that one fourth, if not more, can be raised from the same quantity of seed; they grow much better than in a patch of entire potatoes. The potato is a vegetable that grows best in a cool, moist climate, and I am of opinion the corn crop is but very little diminished in the yield, while the potato crop is much promoted in the product in planting the two crops on the same land. I believe it a great advantage, as in cultivating the crops thus, but little time is lost. I throw a furrow open and drop the potato on the plan of planting corn, and cover them with the plough, at the time the corn should be ploughed the first time. The most labor in raising the potato in this way, is in taking them up in the fall and putting them in the cellar. In 1832 my crop was valuable, it yielded 2400 bushels raised the same way. In 1833 I had but a light crop, as before stated, owing to a severe drought; in 1834, my crop was 2900 bushels, the present crop was 2000. The potato is a profitable crop.—I find them, from experience in feeding, good food for horses, cattle, hogs, and sheep. The hog is most benefitted to have them cooked and mashed, and meal mixed among them. It is an easy matter, and but little expense, to have a *steam* establishment to cook from 1 to 20 bushels at the same time. I have one that 8 bushels can be cooked in, in two hours. The plan is simple and cheap. Any tolerable handy farmer can fix one with a trifling expense. Corn in the ears, or shelled, cut straw, or any kind of food that it may be necessary to have cooked, can be prepared in the same establishment without any alterations being necessary in the machine. It may not be uninteresting to state a few circumstances as to the particulars of a part of my crop. In 1834, from 8 acres which I had in corn and potatoes, (it being a part of the land I had in the mixed crop, I realized an average of the two crops, corn and potatoes, rating the latter at 20 cents per bushel and the corn at 40 cents, of $52 per acre, besides pumpkins and beans: of pumpkins, I gathered 6 waggon loads.

I noticed the description of a large radish in the essay on vegetables. A radish which grew in my garden this season, weighed 12 pounds with the tops and the small roots trimmed off.

Washington County, Va. W. B.

Feeding Live Stock in Winter.—There is, perhaps, nothing relating to rural economy, in which the farmers differ more, both in theory and practice, than in feeding their cattle in the winter season. We speak not now of the different kinds of fodder, or of their comparative value in the feeding of stock, but merely of the manner and frequency with which the cattle are fed.

Many farmers believe it indispensable, both as to the good condition of their stock and the greatest economy of fodder, to feed them five times, at least, each day, during the winter; while others practice feeding but three or four times in a day; and again, others but twice.

Experiment alone can prove which of these modes of feeding will carry stock through the winter in the highest order, and with the least expense of fodder. Our own experience on the subject is decidedly in favor of feeding but twice in a day. More than twenty years' observation

and experience in the keeping of stock, in a climate, where, on an average, dry fodder is required to be given more than seven months in the year, has given us an opportunity to test the value of the several modes of feeding above mentioned. We were first induced to try the experiment of feeding twice in a day only, from information communicated to us by a very intelligent and successful farmer, in a neighboring town. He said he had a few years before occasion to call on a farmer's widow to aid in the appraisal of several cows, and found them near the end of the winter in such high order as to draw his particular attention.

He inquired of the widow, particularly, the manner in which they had been kept, and found she had given them nothing but hay through the winter; and that in consequence of having no man or boy to tend her stock, she had been obliged to do it herself; and being in rather feeble health, she had never fed them but twice in a day. This led him to examine, particularly, as to the kind and quality of the hay with which the cows had been fed. He found the hay not so good as his own, while the cows were in much higher order than his, though th s had been fed five times a day through the winter.

From a knowledge of these facts, he afterwards adopted the same mode of feeding, giving his cattle just so much, twice a day, as they would eat up perfectly clean, and no more; and has since found it, by experience, both a saving of fodder and a benefit to his stock. From this information we adopted the practice of feeding but twice in a day, something more than ten years ago, and have found the same favorable results.—*Northern Far.*

On the Feeding and Management of Milch Cows.—It is of great consequence in the management of a dairy that the cows should be treated with gentleness, so that they may not be afraid of being milked, or dislike the milker. A cow will not yield her milk willingly to a person she fears, hates, or apprehends ill treatment from. Young cows, in particular, may have their characters for gentleness and good milkers formed by the manner in which they are treated. This truth, of much importance to all concerned in a dairy or its products, is well established and illustrated by a communication from Mr Russel Woodward, published in Memoirs of the New York Board of Agriculture, in substance as follows:—

Having formerly kept a large number of cows, I observed many amongst them dried up their milk so early in the fall, that they were not profitable, while others with the same keeping, gave milk in plenty until late in the season. I likewise have often heard my neighbors observe, that some of their cows, though very good in the forepart of the season, dried up their milk so early that they were unprofitable, and they would have to put them off; I accordingly found it expedient to find out the cause, if possible: and when I brought to mind the ways that some of my young cows had been kept and milked, I attributed the cause to the milking of them the first season they gave milk; and by many experiments since, I have found that young cows, the first year they gave milk may be made, with careful milking and good keeping, to give milk almost any length of time required, say from the first of May to the first of February following, and will give milk late always after, with careful milking. But if they are left to dry up their milk early in the fall, they will be sure to dry up their milk each succeeding year, if they have a calf near the same season of the year; and nothing but extraordinary keeping will prevent it, and that but a short time. I have had them dry up their milk in August, and could not by any means make them give milk much past that time in any succeeding year. I had two heifers, which had calves in April, and after getting them gentle, I set a boy to milk them for the season, (which is often done the first season on account of their having small teats:) he was careless, and dried them both up in August. Although I was satisfied I should lose the greater part of the profit of them afterwards, yet I took it upon me the following year to milk them myself and give them good feed, but to no purpose. I could not make them give milk much past the time they dried the year before. I have two cows now that were milked the first year they had calves, until near the time of their calving again, and have continued to give milk as late ever since, if we will milk them.—*Gen. Far.*

(From the New York Farmer and Gardener.)

SAXONY SHEEP.

Mr Editor—Having heard much of the celebrated flock of Saxony sheep, of the pure *Electoral breed*, kept by Mr Henry D. Grove, of Hoosack, Rensselaer county, and wishing to improve my present stock of sheep, I resolved to pay that gentleman a visit. I accordingly availed myself of a leisure time, and set out with a determination to purchase a few, and gather information from his experience. Accordingly, after a speedy passage of two and a half days, I found myself, an entire stranger, at the house of Mr Grove. I was, however, received with the kindness and welcome I might have expected from an old acquaintance; after an hour or more of chat, we took a ramble over his farm, which I found in excellent order, although upon which perhaps considerable improvements might be made, as he informed me

there had already been made, and were still making. He showed me his small stock of excellent short horn cattle, all in high condition, and with which I was well pleased. We next proceeded to a field where were his buck lambs, about 30 in number; we yarded and examined these thoroughly, as we did also his ewe lambs in an adjoining field; we next yarded his older bucks, and took a searching look at them. His whole flock of about 150 ewes were yarded, and I had an excellent opportunity of examining them singly, and found them to be much superior to what I had anticipated. Having taken plenty of time, and exercised my utmost carefulness and attention in the examination of Mr Grove's flock, I think I can say, and that too without arrogance or duplicity, it is decidedly the best flock within the circle of my acquaintance, especially his ewes, his buck lambs, and reserve service bucks. And, further, I would most candidly recommend to those wishing to improve their flocks, to visit Mr Grove, and examine his flock for themselves; I feel fully assured none such would return to their homes without at least one of his full blood Electoral Saxons. I left home, not expecting to purchase more than two or three, but finding them so excellent, could not leave without taking eleven, 4 grown bucks, 3 buck lambs, and 4 ewes, which cost from $15 to $20 per head at Mr Grove's; cost to transport by waggon to West Troy, $3 50, from thence to Manlius, on boat, $5 50, toll 78 cents; cost of keeping up, $3 50.

Since my arrival at home, I have been persuaded, by some particular friends to let them have one a piece, three of them, two grown bucks and one buck lamb, at $25 per head, and so well are my neighbors generally pleased with these sheep, that I presume I could sell the remaining ones at a much higher rate. I very much approve of Mr Grove's winter management of sheep, which it may not be amiss to notice in this place. He has a large barn built on a side hill descending to the east; the upper part of the building is for keeping the hay, and the basement serves as a shed, or stable, for it may be closed by doors, or they may remain open, at pleasure. At one end is a large, warm, and commodious cellar, where potatoes, turnips, &c. are kept for winter feeding; these are cut in a trough containing 3 or 4 bushels, with an instrument not unlike two spades, the edges crossing each other at right angles, and fitted to a handle about 4 feet long, with which a man will cut 2 or 3 bushels per minute. His racks are light, convenient, and simple, consisting of three small poles, the one at bottom receiving the rounds of each side and one pole on each side at top, the rounds two feet long and three fourths of an inch in diameter, and the top poles separate about two feet, then a light manger about two feet wide and one foot from the ground, the rack is set firm lengthwise in the centre of the manger, which catches all that falls from either side of the rack, and is an excellent plan to feed grain, potatoes, &c. It is the opinion of Mr Grove, (and I count him good authority,) that potatoes are preferable to turnips for sheep, because they are a much more substantial food, and will never cause sheep to scour, if they are regularly salted, and otherwise properly fed. He also considers it highly necessary that sheep should be regularly bedded with straw; his racks and manger, where his sheep are fed, are kept constantly under cover. Mr Grove keeps a regular record of birth, deaths, sales, and every circumstance relative to his flock is there exactly recorded, every sheep is numbered by marking the ear, and the number is strictly recorded, and many peculiarities highly interesting I might state; but I will conclude by advising my brother farmers to go and see Mr Grove, and *hear* from his lips, and *learn* by his experience, many things for their welfare.

Manlius, Oct. 27, 1835. FARMER C——.

CINCINNATI PORK MARKET.—A correspondent of the Baltimore Patriot, writing from Cincinnati, says:—

"Last year, in this city alone, 152,000 hogs were slaughtered and packed, and largely increased quantities at Hamilton, Rossville, Franklin, Middleton, Dayton, Lawrenceburgh, Madison, &c. This year, I am informed, that 60 or 70,000 will be the extent that will be packed in the city, and but very few will be packed at any of the above-named towns. In Illinois, some few more will be packed this winter than last. But throughout the whole Western country, it is said, that the amount of Pork packed will not exceed one half of the exportations of last year. If this should be the case, (and I have no doubt of the fact) there will, the coming season, be a scarcity throughout the whole country; and prices, consequently, must be high. I am informed by our Pork merchants, that they have advices from New Orleans, Mobile, and many of the Western markets, that the stock of Pork, Bacon and Lard on hand is limited, and commanding good prices."

WESTERN RAIL ROAD.—We understand that 13 miles of the branch of this rail road from Hudson to the line of this State are already under contract, and that the contractors are now engaged in the execution of the work.

The experiment of planted mulberry trees at Algiers, is about to be commenced on a large scale; the sugar cane is also to be cultivated there.

ADDRESS

Before the Massachusetts Society for Promoting Agriculture.

BY HENRY A. S. DEARBORN.

Gentlemen of the Society and Fellow Citizens:—

The first act of the Almighty, after "the dry land appeared," was the creation of a plant, and sowing its seed, that of savage man, in his progress of civilization; and the earliest achievement in the industrious arts was the construction of a plough. Whether we refer to the mythology of antiquity, or the authentic records of historians, agriculture has been the harbinger of the highest state of moral and intellectual improvement, which has ever been reached in any age or climate. Those pursuits which were commenced merely for the purpose of furnishing the necessaries of life, and were long held in degraded estimation, have ultimately claimed an elevated rank among all nations, at the most glorious period of their existence. No matter how various may have been the character of once barbarous tribes, or how dissimilar their countries, habits and customs, still they have all followed the same route, in the career of refinement; and those which have become most celebrated for exalted attainments in literature, science and the arts, have also been equally distinguished for their superior skill in the cultivation of the earth. Not only the rich valleys and plains were converted into luxuriant fields and splendid gardens, but the rugged mountain, arid desert and stagnant morass successively yielded to the labors of tillage, and magnificently harmonized with the developements of mind, the sumptuousness of wealth, and the embellishments of taste.

The vicissitudes to which nations have been subjected, form memorable eras in the history of agriculture. In the primitive ages, it was limited in the objects embraced within its attention, and confined to the simplest operations of the husbandman. At times it has nearly ceased to exist throughout the globe; and even when carried to the highest practical point of perfection in one region, it has been unknown elsewhere, while it has again fallen into desuetude, after having been for centuries the general occupation of the people, the greatest source of private affluence, and the chief cause of national prosperity. As a science and an art, it has not only been intimately connected with the condition of man in all his social relations, but is blended with the wondrous history of his creation, and the revelations of his religion.

After the expulsion, the first wants of the progenitors of the human race were food and clothing and the duty of providing them devolved upon their sons — the one becoming "a keeper of sheep," and the other "a tiller of the ground." But there was this remarkable limitation in the sentence for disobedience, as to the application of the products of their industry — those of vegetation only being allowed as food: "Thou shalt eat the herb of the field, till thou return unto the ground." This interdiction continued during the antediluvian cycle; but after the flood, all animals were formally delivered over to the surviving patriarch, with this beneficent declaration: "Every moving thing that liveth shall be meat for you. Even as the *green herb*, have I *now* given you *all things*."

Notwithstanding the precedence which the cultivation of the earth necessarily claimed anterior to this momentous epoch, still, for many generations, the descendants of Noah lived a pastoral life, and were nomade in their habits, although on receiving the sceptre of the earth, "he began to be a husbandman," and one of his first acts was "to plant a vineyard."

Advancing from the mountainous regions of Ararat, into the fertile and sunny vales of the Euphrates, the acquisition of large flocks and herds, with wide ranges of pasturage, induced a less laborious mode of subsistence than must have been indispensable under the austere conditions which the primeval inhabitants were permitted to live. These wandering habits were continued throughout Chaldea and Canaan, down to the patriarchal ages of Isaac and Jacob, and still prevail in the East, among the Arab and Tartar shepherds of the present day. Like the offspring of Jabel, they "dwell in tents," and seek, as of old, fountains of water, in the palm groves of the plains, and the refreshing streams of shaded valleys, as temporary places of encampment.

It is a singular fact, that bread is not mentioned as an article of food, until it was offered by Abraham to the angels, who appeared to him as "he sat in the tent door, in the heat of the day"; showing it was the most rare and precious gift which could be presented. So late even as that period, the wealth of individuals consisted chiefly in flocks and herds; and the most affluent had no fixed or permanent residence, but were obliged to roam over the country, as a large extent of territory was required for the maintenance of comparatively a small population, when the cultivation of the soil was so little relied upon for support. Even when Abram and Lot removed to the fertile borders of Palestine, it was found that "the land was not able to bear them, that they might dwell together; for their subsistence was great," as each had vast numbers of "sheep, and oxen, and men servants and maid servants, and camels"; so that these distinguished and long associated friends were obliged to separate from each other, Lot choosing "all the plain of Jordan, that was well

watered, even as the garden of the Lord," while "Abram removed his tent to the plain of Mamre."

Thus, after a lapse of more than a thousand years, the Hebrew race appears to have made but little progress in the arts of civilization, and exhibits only the migratory herdsman, and the incipient efforts of the agriculturist. So precarious even were their means of subsistence, that their most renowned chieftains were compelled "to go down into Egypt and dwell there, because there was a grievous famine in the land."

Egypt! now for the first time mentioned by the sacred historian. What vivid reminiscences does that name call up. Egypt! the birthplace of science, the cradle of the arts, the wonder of antiquity, the paragon of nations. A country and a people which have been subjects of the deepest interest, and the most exciting inquiry, from the time of Joseph to the travels of Herodotus, and from the visit of Diodorus to the learned researches of Champollion. At the talismanic name of Egypt the ponderous gates of all past time are thrown open, and how fresh, clear, and palpable does the whole history of the world unfold before us.— For a long succession of ages, it was the focus of knowledge, and at the same time the centre of that intellectual radiance, which lighted onward the nations of the earth, in their march from barbarism to refinement. There were nurtured the vast tribes of Israel, — there were they trained to fulfil the high destinies which awaited their miraculous Exodus. From thence went forth that wonderful nation, — those chosen people of God, whose present existence, whose language, faith, and identity of character, is a perpetual testimony of the prophets, and of the truth of those revelations, which constitute the religion we profess.

Egypt! who can hear that word without being excited? It seems to embrace the entirety of the past. What throngs of ideas, — what multitudes of events, rush upon the memory, — what mustering conceptions does the aroused imagination embody forth! The gorgeous courts of the Pharaohs, the conquests of Sesostris, the disastrous invasion of Cambyses, the triumphal march of Alexander, the splendid reigns of the Ptolemys, Pompey's tragic death, the victories of Cæsar, the fate of Mark Anthony, the devastations of the Saracens, the Ottoman subjugation, and the battles of Napoleon, all pass in rapid review, like the magic pageantry of an illuminated scene.

It was on the banks of the Nile, that the moral powers of man were first and most successfully developed. There were laid the deep and broad foundations of an empire, which surpassed all others in the extent of its power, in the range of commercial enterprise, in the number and grandeur of its cities, the magnitude and elegance of its palaces and triumphal monuments, — in wealth, intelligence, and the arts, — in all that reflects glory on a people, and gives eternal lustre to nations. There, too, was established the dominion of Agriculture; there she commenced her reign; and yet how long was that mighty kingdom wrapt in obscurity, until revealed in the ever-interesting and instructive tale of that adventurous shepherd boy, Israel's darling son. Then, indeed, does it burst forth with imposing magnificence, and the holy annals are filled with its importance, and the gigantic influence which it possessed over all the nations of the East. Subsequently we are very exactly instructed, by both Greek and Roman authors, as to its vast agricultural resources; and the accurate delineations on the still existing tombs of the kings, confirm their glowing accounts of the importance in which the cultivation of the earth was held, as well as the perfection to which it had attained, from the well tilled field of the husbandman, to those superb gardens, which embellished the princely establishments in the environs of Thebes, Memphis, and Heliopolis.

By a long matured theory and practical system of culture, every foot of land was reclaimed, from the bordering deserts, which the fertilizing waters of the Nile could be made to irrigate. Thus the luxuriant valley of that majestic river, in the totality of its lengthened course, was covered with the rich and various products of rural industry, and not only furnished the whole subsistence of a numerous native population, but was rendered for centuries the garden and granary of the world.

From Egypt, civilization gradually extended along the shores of the Mediterranean, the Archipelago, and Euxine; and Phœnicia, Judea, Greece, Carthage and Rome, with their numerous colonies, became each distinguished for their progress in intellectual attainments, and whatever tends to give dignity to man, or glory to an empire.— There were cultivated in a pre-eminent manner, the useful and ornamental arts, and none claimed more attention, or were carried to greater perfection, than those connected with the tillage of the, earth. In the march of their victorious armies, letters, and their ever constant and inseparable companion, agriculture, were extended over northern Africa, and through Asia Minor, Spain, Gaul, and Germany, to the distant isles of Britain.

In each of those nations, the cultivation of the earth was the most honorable of all pursuits.— The Egyptians were so fully sensible of its importance, that its introduction was ascribed to the God of their idolatry; and the Greeks and Romans dedicated temples, and erected statues to the numerous divinities of their mythology, who presided over its various departments. As early as the time of Homer, Hesiod, and subsequently Xenophon, with many of his eminent countrymen, wrote on rural affairs. The Carthagenians, in the

palmy days of their prosperity and glory, considered the occupation of a husbandman, not less meritorious than the profession of arms, exalted as was the estimation in which that was held, by the warlike countrymen of Hamilcar and Hannibal. They were so much more distinguished than any other contemporaneous nation, in the science and practical operations of tillage, that a voluminous work by Mago, one of their most celebrated generals, was so highly appreciated, by their haughty and implacable enemies, that it was translated, for the benefit of the people, by an express decree of the Roman Senate.

As to the value placed on agriculture by the Romans, we have the fullest evidence. It was encouraged by liberal donations of land, elevated by the sanctions of religion, and rendered not merely a meritorious pursuit, but an object of the first consideration, by the most wealthy and illustrious citizens. In their conquests, if not always more magnanimous than most other nations, they never lost sight of the grand object for which their invasions were projected — the augmentation of the resources, and prospective aggrandizement of the empire. Instead, therefore, of desolating, they endeavored to improve the countries which they subdued, and were solicitous to civilize the inhabitants by the introduction of letters, with the useful and ornamental arts. Cato derived as much honor from his writings on husbandry, as by his eloquence in the Senate house, his victories in the field, or his lofty patriotism at Utica. Cincinnatus was twice called from his plough to the dignified offices of Consul and Dictator. Virgil acquired as much fame for his poems on rural economy, as by his epic on the adventures of the Ilian prince. Pliny, the Linnæus of antiquity, was as ambitious to obtain the honors which were lavishly bestowed on the cultivators of the soil, as the distinction of pro-consul in Spain. Varro, the intimate friend of Cicero, and who had the reputation of being one the greatest philosophers, and the most learned man of Rome, has his name perpetuated by a treatise on rustic affairs, being one only of his five hundred writings which have come down to us. Columella was the agricultural Cyclopediast of the Claudian age, and his great work, in which he treats on all the branches of agriculture and gardening, is still extant.

Simultaneous with the advancement of the arts of civilization in the West, — if not at an earlier period, — there was a like movement in the East, by which they were extended over Palestine, Persia, Media, and the populous valleys of the Indus and Ganges, and probably to the ocean bounds of China; and considerable portions of that immense region had become eminent for improvements in tillage, anterior to the expedition of the Macedonian conqueror.

But all those once powerful kingdoms of antiquity were destined to experience a tremendous reverse of fortune. By slow advances, each had reached the loftiest point of national grandeur, from whence their decadence was rapid and irremediable. Neither wisdom, numbers, wealth, or valor, could arrest their disastrous fate; and they were successively, either subjugated or impoverished by some ambitious chieftain of a rival power, or overwhelmed by those tribes of barbarians, which in all ages have come down, like a furious tempest, from the northern wilds of Asia and Europe, spreading fire, slaughter and devastation in their terrific course. The whole human race was thus thrown back into such a degraded condition, that the moral firmament was obscured like a perpetual night, by the dark and lurid clouds of ignorance, superstition and wretchedness. Entire nations were so thoroughly exterminated, or so blended in the population of their savage conquerors, as to have lost their distinctiveness of character. Egyptians and Carthagenians have disappeared from the earth, leaving no traces of their existence, but in the stupendous ruins of their cities, pyramids, temples, aqueducts and tombs; and even the inscriptions on those of the former are now unintelligible, while not a single book, or page of the language — no, not so much as the alphabet — of the other has survived: so complete has been the work of destruction. Had it not been for the sacred volume of the Jews, and a few of the Greek and Roman authors, which have reached us, the history of the world, from the creation to the revival of letters, would have been as unknown as that of the American continent, before the voyage of Columbus. By his transcendent genius, a way was opened over the ocean to this western hemisphere, and by the aid of those precious repositories of learning, an arch has been thrown across that immense gulf of oblivion, which separated the far distant past from the present.

Amidst the universal gloom, which so long enveloped the earth, a few but widely separated beacon-lights faintly glimmered in the distant horizon. They arose in the midst of the wide extended encampments of the Arab, the Saracen and the Moor, where yet glowed the unextinguished embers of that general conflagration, in which was consumed the accumulated wisdom of thirty centuries. There it was, that the lamps of literature, science and the arts were reilluminated. At Bagdad and Ispahan, Bassora and Cairo, Fez and Cordova, were again reared the temples, and thither thronged the devotees of intellect. It was there the revival of learning commenced and gradually spreading over Southern Europe, the progress was onward, until it reached

"That bleak coast, which
Hears the German ocean roar,
Whence full-bloom'd, strong,
And yellow hair'd, the blue ey'd Saxon came,

then with him, and freedom, and Christianity, ultimately crossed the broad Atlantic, and in conformity to prophetic annunciation westward still, they keep their glorious course.

During the ages of bloodshed, desolation, anarchy and barbarism, which succeeded the overthrow of the Roman Empire, agriculture was almost wholly abandoned, and pasturage was substituted for tillage. The earliest efforts for its restoration was made by the Moors in Spain, and was there carried to great perfection, during the period of their supremacy in that kingdom. Remains of numerous hydraulic structures, which were erected for the purposes of artificial irrigation, so indispensible in that sultry climate, are to be seen in several parts of the country, which evince the intelligence and enterprise of the Moorish inhabitants. Some of the most learned men of that extraordinary race also wrote able works on husbandry, which are still preserved in the royal libraries of Madrid: but after the impolitic expulsion of that most enlightened and industrious portion of the population, the cultivation of the earth rapidly declined, and has never since regained its former consequence.

The Italian States early adopted the agricultural improvements which had been introduced into Sicily by its Saracenic conquerors. The Normans and Flemings next became conspicuous for their advancement in husbandry; and after the invasion of Great Britain by the ambitious sovereign of the former, numerous emigrants from both of those nations, soon followed, who gave such a powerful impulse to rural industry, that it extended with various success, over the whole island, where it has finally reached a higher state of perfection, in all its applications, than in any other country.

Stimulated by the favorable results, which had been produced in England, most of the continental nations were induced to attempt like ameliorations, in their antiquated and very imperfect modes of cultivation. Scientific experiments and practical illustrations in the renovated art of tillage were made, and beneficial changes gradually effected, so far as the character of the soil, the products best adapted to their various climates, and the peculiar demands of other branches of industry, might dictate or require. This spirit of improvement has continually extended, with varying energy and advantage, but most successfully in portions of France, Holland, Belgium, Germany and the valley of the Po.

Agricultural institutions were very generally established, for the concentration and diffusion of information in all the departments of rural economy, either by the voluntary association of the affluent, industrious and emulous portions of the community, or in conformity to express laws and royal edicts. In aid of these powerful auxiliaries, botanical and horticultural societies, and experimental farms and gardens were rapidly founded from London to Naples, and from Paris to Moscow.

The proceedings of these numerous treasuries of knowledge, and seminaries of mutual instruction, being published in the form of reports, or periodical journals, whatever useful discovery is made or interesting fact announced in any part of the large region included within the circle of their influence, soon becomes known in all the others. In addition to all these very effective means for the dessimination of intelligence, funds have been provided by the contributions of the members of the several corporations, the generous bequests of individuals, and the munificence of government for the encouragement of tillage by the distribution of rewards and premiums.

From England, our ancestors brought the theory and practice of husbandry, which there prevailed at the period of their adventurous expatriation; but the progress of improvement here, has not kept pace with that of the parent country. Latterly however, honorable and very successful exertions have been made to awaken a more zealous spirit, diffuse greater information and create a better taste in relation to a subject which is of such vital consequence to the United States, where at least eight tenths of the inhabitants are actually engaged in agricultural pursuits, and who, besides supplying the entire alimentary subsistence of the whole population, a large portion of the clothing and other articles of comfort and luxury, furnish more than three quarters of the native products of exportation, amounting to over fifty millions of dollars.

[To be continued.]

SILK FOR DOMESTIC PURPOSES.—In many families, there are individuals who are in feeble health, or who have had the misfortune of a dislocated or broken bone, who suffer more or less in variable weather, and by languor or pains, can anticipate the approaching storm with a degree of accuracy that cannot be mistaken. Physicians inform us, that this sensation is occasioned by the escape of that portion of electricity which is absolutely necessary for the healthy condition of the body — and as silk is a non-conductor of electricity, medical writers recommend its use, in every possible way, as an *over-dress* to cotton or flannel shirts and drawers. In this way it may be made to prevent or alleviate pectoral or consumptive

affections, rheumatism, inflammatory fevers, indirect debility, and that languor so oppressive to persons of feeble health. A coarse quality of silk similar to the pongee silk, so called, will answer very well for such purposes, and being strong and stout, will do good service. Silk of such quality, might be manufactured in the domestic household and the culture of the mulberry and the manufacture of silk, may be attended to in almost any family, without interruption to other occupations, not only as a lucrative business, but also to prevent or alleviate a variety of pains which flesh is heir to. This subject is becoming so important to the community, and can be undertaken with so little expense, that it merits the attention of every family, to begin a nursery of mulberry trees without delay, and the first or second year may commence feeding the worms, and manufacturing silk, even upon our *common reels*, *wheels* and *looms*. Because there are large establishments in contemplation and progress, for the manufacture of silk, some have thought these companies would discourage the domestic manufacture, but instead of discouragement, it ought to operate as a stimulus to family culture; because if families do not wish to manufacture their own silk, they can have a ready market for the cocoons. It is expected, and with a good degree of probability, that the time will come, when our families will not only manufacture, but that they will dress themselves with silk of their own make, with as little expense as they now clothe them in wool and flax.—*'P.' in Northampton Courier.*

THE SILK WORM.

There is neither perplexity nor mystery in the art of rearing and managing this extraordinary insect. We propose to prove this position by an appeal to the most popular treatises extant — relying on those only which are best adapted to the circumstances of our own country. The works which we consider most entitled to faith in the premises, are Kenrick's Guide, of which we have already spoken — and Cobb's Manual, published two years since by order of the Legislature of this Commonwealth.

We learn from these sources, that in six weeks the vegetable substance of the mulberry leaf is converted into silken threads, by the operations of the silkworm. The eggs, whence the maggot proceeds, when first deposited, are of a pale yellow hue, in size smaller than grains of ordinary beach sand. In the course of four days, those which are likely to produce, assume a sort of lilac, or deep slate color — those which exhibit no change of shade, are unproductive, and of no value. Until preparations are made for supporting the worm, the egg should be preserved in a dry cellar, inclosed in a box made tight, sufficiently safe from the depredations of vermin, and from the mouldering effects of moisture.

In the latter part of May, or beginning of June, when the mulberry leaf puts out, the eggs of the silkworm may be subjected to the process of hatching, if the weather be not cold and damp. The papers upon which the eggs have been lodged by the parent moth, may be placed on tables or hurdles in a warm room, having a southern aspect, but not directly exposed to the sun's rays. In a few days, according to the temperature, the eggs will turn somewhat pale; when there should be laid over them sheets of white paper, riddled by means of a knitting needle, and bent up at the edges, that the young brood may not escape. Over these sheets, lay a few twigs of the mulberry, containing the young leaves. Towards these, the insects will be attracted, and will at once commence feeding. Fresh leaves, finely cut up, should now be administered three or four times a day.

On the fourth day, the insects will have passed what is commonly deemed the first stage of their existence — at which time they become torpid, and must be allowed to rest. During this stage, the litter which they occasion, should be twice removed. They remain inactive three or four days, when they awake with an increased appetite; more food, less delicately prepared, must then be supplied, and their litter oftener removed. Another change, or moulting, preceded also by a state of torpitude, occurs on the thirteenth or fourteenth day. Hurdles of coarsely woven twine may be placed above them, overlaid with leaves, to which they will resort, leaving their litter to be easily removed — an operation which should now be daily performed.

Having reached the fourth stage, the worms are commonly of a light flesh color. They now eat ravenously, and consume the fullest grown leaves in large quantities. They require feeding, in this stage, night and day — and their product of silk is increased in proportion to their supply of food, and their ability to devour it. It is important to the health of the worm, that cleanliness, and a pure atmosphere be always maintained, especially in this stage.

When the insects are ready to commence spinning, or forming cocoons, they manifest an apparent restlessness, and frequently are seen wandering over the untasted leaves and reaching upwards. This period ordinarily arrives in about one month after the hatching. The worms are then usually more than three inches long, and nearly transparent. Brush, broom corn, or other convenient means for climbing should be placed for their accommodation. They soon ascend and enter upon their final labor, whereon they employ themselves without cessation for four or five days,

when the cocoon is completed, the laborer remaining within, and changing to the chrysalis state.

A fortnight afterwards, a little light gray moth emerges from the cocoon, and without taking food at all, for the space of thirty or forty hours, proceeds to lay its eggs, three or four hundred in number, arranged circularly, and closely adhering to papers prepared for the purpose. The moth exists but a few hours after having thus made provision for a new generation.

There are numerous details, of course, connected with the treatment of this wonderful and interesting insect, which we have neither time nor space herein to specify. But we have presented a sufficiently general view of the subject, to satisfy the reader that there is but very little intricacy or difficulty in the matter. Those who may determine, practically, to pursue the inquiry, we will engage, shall be furnished with all necessary information at a very trifling expense. Our only design in the present article, being to dispel doubts touching the ease and facility of transforming the mulberry leaf into silk, we have herein abstained from entering into particulars respecting the natural history of the worm, the appearance and preparation of the cocoon, &c. &c. all, or any of which, shall be cheerfully communicated to those who may need them for experimental purposes.—*Nantucket Inquirer.*

[From the Northampton Courier.]

CHINESE MULBERRY.

The following extract is from a practical cultivator of the common white mulberry, and a manufacturer of silk, who is well acquainted with the business. The process by which he has come to the result of his experiments, appears plausible, and deserve high consideration. He must have set his cuttings and roots of the Chinese mulberry very compact, to give such a yield to the acre; probably only about two feet apart. But the nutritious quality of the Chinese leaf over the common white mulberry, may, in some measure, account for the quantity of silk calculated for the acre; as one pound of Chinese leaf is supposed to furnish nearly as much nutriment as two pounds of white mulberry.

Some persons have said that forty pounds of silk may be considered the product of an acre of land; others, that an acre will yield sixty pounds of silk; these different results probably arise from the size or difference of the number of trees on an acre. The accounts given are generally the result of feeding with the white mulberry. But the following extract is the result of feeding *exclusively* on leaves of the Chinese mulberry *(morus multicaulis)*. It will be seen that the plants of cuttings set out the last spring, have yielded over half a pound of leaves to each tree, and the plants set out the last spring, having some roots to start the branches, gave one and a half pounds of leaves to each.

It is calculated by some, that if silk worms are fed on white mulberry leaves, it requires one hundred pounds of leaves to make one pound of silk, but by the following extract, it appears, that from seventy to eighty pounds of Chinese mulberry leaves are *sufficient* to make one pound of silk; a great saving in favor of the Chinese mulberry.

Another fact in favor of feeding worms *exclusively* on the morus multicaulis is, that by an experiment recorded in the July number of the Silk Culturist, 500 worms being fed on the white mulberry, and 500 worms fed on the Phillippine mulberry (the Manilla multicaulis), and each parcel of worms fed the same length of time, and with the same quantity of leaves each, resulted as follows:—It required 420 cocoons of those fed on the white mulberry, to weigh one pound, but only 334 of those fed on Chinese mulberry. Another fact:—It is said that the fibre of the silk from feeding on the Chinese, is stronger than that fed on the white mulberry, and it is within the knowledge of the writer, that by comparison of each kind in his possession, cocoons fed exclusively on leaves of the Chinese mulberry, have a more brilliant lustre than cocoons fed exclusively on white mulberry leaves. These facts being admitted, there is wanted but one more — to convince the public that the morus multicaulis will successfully resist our northern winters. In answer to which, it might be said, "what has been may be again." Although unfavorable impressions have been rung from Maine to Georgia, yet the opinion of good and competent judges, in the valley of the Connecticut, and elsewhere, who have tested the experiments, whose confidence is not to be paralysed by conjectures or surmises, have the *audacity* to believe that it will succeed; and from the fact, that even the last severe winter proved no more or even so destructive to the Chinese mulberry, as to the white mulberry, of the same age and exposure.

It is the opinion of cultivators of the Chinese mulberry, that even should it be necessary to lay down and cover the plant every winter, or to remove the plants to the cellar, and reset every year, or should they be killed to the root, no essential damage would ensue; it would sprout again with additional number of stalks. Cultivators here think, that should the tree or plant be every year headed down, the amount of foliage would be increased, and worms from the eggs of the mammoth kind, so called (some of which are in town), producing (with the same care and feed) cocoons of nearly double the weight of the common kind, being fed on the morus multicaulis, favorable results may be expected, and is there not

Encouragement for Silk Growers?

Extract of a letter to a gentlemen in this town, dated October 16, 1835. "One observation we have made in regard to the product of leaves of the plant (Chinese mulberry), which I think worthy of notice. We set last Spring 1500 cuttings, about 1000 started and grew well, but the dry weather affected them much; the ground on which they stand, is by no means rich — it would not yield 20 bushels to the acre. From 100 of these young plants, which we considered below an average, we gathered 55 pounds of leaves, giving, at the rate they were set, about 8000 to the acre, sufficient to make at least 100 lbs. of silk. From 100 trees (or roots) that were started the year before, we gathered 150 lbs. of leaves, the same number per acre would give us 21,000 lbs. of leaves, or from 275 to 300 pounds of silk.

From the manner we cultivate those trees, we are satisfied, that an acre can easily be made to produce at the same rate. We shall try the experiment next season, with *one acre* of cuttings — and *one acre* of trees (with roots) started the past season."

Northampton, Nov. 1835.

CONCORD SILK COMPANY.

I believe there has been a passing notice in your valuable paper of a company by the above name, but no particulars were given. At the present time, when there is such a general excitement through the United States, and especially in New England, on the subject of silk growing, a brief account of this company may not be uninteresting to your readers, atlhough it is yet in its infancy. The company was formed last June, and incorporated with a capital of $75,000. A farm was purchased of 250 acres, and cost $4,000. The officers chosen for the present year, are Albe Cady, *President;* Hamilton Hutchins, *Secretary;* Moses G. Atwood, *Corresponding Secretary;* Garden P. Lyon, *Treasurer;* Isaac Hill, Abner B. Kelly, Stephen Brown, John Whipple, Samuel Evans, and Charles Smart, *Directors.* An agent has been appointed, who resides on the farm and manages it, being under the control of the directors. The location of the farm is quite retired, being about two and a half miles from Concord village, but beautifully situated on the easterly side of Turkey Pond. A two story house and barn in the purchase, have been repaired, and a building of 64 feet by 34, for various purposes, has been added the present season. A building particularly for a cocoonery has not yet been erected, as part of those now occupied will be used for that purpose probably two or three years. The land is good, and all the variety such as wanted for general farming is here found. It is calculated by those competent to judge, that more than one half of the farm, or 125 acres is well adapted either for the Chinese or Italian mulberry. About 4000 trees have already been planted, and it is intended to add a much greater number next spring. As the land will be cultivated for other purposes, the trees have been set out 15 feet by 6, which gives about 500 to the acre. At this distance they will be permitted to grow about 10 feet high. The land occupied by the trees this year has been planted with potatoes which yielded about 150 bushels to the acre, without any manure, except a small quantity of plaster of Paris. No worms have been kept the past year, as it is not advisable to pick the leaves the first season after transplanting. It is intended to commence next summer, by feeding about 100,000.

The Concord Silk Company have not been led into this enterprise by any high colored statements which may have been made by enthusiasts and those little acquainted with the business; but they have taken for the basis of their calculations the lowest estimates of experienced men; men who had no object to deceive, but rather would be interested in giving correct information. They feel perfectly satisfied that the profits of a mulberry plantation, judiciously managed, will be such as to satisfy those who are at all reasonable in their expectations, and who do not expect to make a fortune by a single effort.

ONE OF THE COMPANY.

Concord, N. H. Dec. 15, 1835.

(From the New England Farmer.)

BROOKS' SILK SPINNING MACHINE.

The late valuable improvements that I have made in many respects on my machine, by which I spin nearly double to each spindle that was spun by the machine stated in the following letter, induce me again to invite those engaged in silk culture to try *Brooks's Patent Silk Spinner;* fully believing it is the best adapted to spinning silk in the best manner, for any use whatever. As a confirmation of its giving satisfaction, I publish the following letter from a citizen of Ohio, who never saw the machine before he purchased one; and had no instruction how to use it, except the printed directions which are furnished with each machine.

Mount Pleasant, Jefferson co., Ohio, }
11th mo., 28th, 1835. }

Respected Friend—Thine of the 14th has just come to hand, and I am sorry to learn that mine of 7th mo. last, never reached thee. After having tried my machine, I wrote immediately, to let thee know that I would give thee thy price for the right of this State. Not being acquainted with

the merits of the machine, I thought best not to purchase the right, until I had tried it; I am well pleased with it, and have been anxious to obtain the right.

I have succeeded well, and my success has encouraged a number of my acquaintances to turn their attention to the business, some of whom I have promised machines to, on the credit of thy having offered me the right of the State, either as thy agent, or under purchase of thee. Having tried the machine, and also having ascertained that the demand for it is likely to be greater than I expected last spring, I am willing to give thee —— for this State.

With much difficulty I succeeded in getting 150,000 eggs last spring; they hatched and did well with me, and I have about enough prepared for the loom to make one hundred yards, seven eighths wide. I expect to make upwards of three hundred yards out of my crop, and am preparing to go largely into the business next year. Thy machine meets my expectation every way; all the fault I find with it is, I have not spindles enough. I have spun eight ounces per day with the four spindles. I want a machine that I can spin two or three pounds a day with.

I have saved about three millions of eggs for next year; one third of which I expect to feed myself, and all of which I expect will be manufactured in this village at my factory; I am putting them out to be fed in different neighborhoods. We feed principally on the native leaf, which we find to do very well. After I get through with feeding my worms next summer, I expect to visit your State, and shall call to see thee. I have obtained a weaver from London, and we expect to manufacture every thing, from a ribbon to a bolting cloth. Thine, with respect, T. W.

In a previous letter the writer of this requested liberty of me to build a machine on a large scale, to be propelled by steam power. Also my agent at Mansfield, Conn. is building a machine to carry many spindles propelled by water power. I have published the above letter, although the writer did not expect it to appear in print. I have not doubted the propriety of publishing the letter, believing his philanthropy would be well pleased to be useful to the public.

ADAM BROOKS.

(From the Genesee Farmer.)

INTRODUCTION OF THE POTATO,

Its Culture, and Advantages of new Seed.

That the potato *(Solanum tuberosum)* is a native of South America, and was first introduced into Europe from that country, by the way of Spain, has been placed beyond a reasonable doubt by the researches of Sir Joseph Banks, and the discove ries of late travellers. The first mention made of the root, is found in a scarce volume printed in 1553, where it is called *papas*. The potato was introduced into Ireland by Sir Walter Raleigh in 1586, and soon found its way into England, They were not much known in London until 1650, and at first were cultivated in botanic gardens only. As an article of food the potato was at first lightly esteemed, and the best methods of producing it little understood, as will appear from the following remark in Evelyn's work: "Plant potatoes on your worst ground, take them up in November for winter spending; there will enough remain for stock though ever so exactly gathered." It is curious to observe the opposition which its introduction has in almost every instance at first called forth; but, like most other things which possess intrinsic value, it has gradually worked its way into notice and favor, and is cultivated within the tropics and 64 deg. North, while it seems adapted to most exposures, and every variety of soil. In some parts of Germany the potato did not gain a foothold until 1720; in Switzerland in 1730, and it was not until the extreme scarcities consequent upon the wars of the French Revolution were felt, that the prejudices against the potato could be subdued in France, and its culture successfully attempted. The extensive culture and use of the potato in Europe as an article of food, has unquestionably added millions to its present population, as it has prevented those distressing famines which used so frequently to occur; and the poor of England and Ireland may forgive Sir Walter for the introduction of tobacco into those countries, when they remember that to him they also owe the potato, a root which constitutes their chief support. It appears to be now pretty generally acknowledged, that the maximum of the duration of life in vegetables, as well as animals, is determined by a law of nature, under whatever circumstances the individual may be placed; and Mr Shirreff, in the London Horticultural Transcript, maintains that in England not a healthy plant of any kind of potato that yields balls or seeds, and which was in culture twenty years ago, can now be found; and every agriculturist of experience in this country, which is probably as favorable to the production of the potato as any region of the globe, if they are not prepared to go as far as the English writer, must admit, that the most esteemed varieties of any given time are very apt to degenerate and become worthless in the space of a few years. Nature obviates this natural process of deterioration, by reproducing the individual from the seed; and in England, this plain course of producing new varieties or renewing old ones, has been adopted with great success. There, many persons are employed in raising what are called seeding

potato. This operation is performed as follows: The largest as well as earliest potato balls or berries are gathered when thoroughly ripened, from several of the choicest varieties; these are kept in dry sand until spring, or else when gathered, the seeds are immediately separated from the pulp and dried, and then kept in paper until wanted. As soon as the season will admit, the seed is sown in a light, clean soil, in drills half an inch deep, a foot apart, and in the drills at the distance of six inches. When the plants come up, they are properly thinned, kept clean of weeds, and earthed up as may be necessary, generally not more than twice. When the top turns brown and decays, the tubers or roots are taken up and carefully preserved through the winter from frosts. The tubers will be of various sizes according to circumstances — generally of the size of a walnut, or perhaps larger. These planted in the spring will produce roots of sufficient size to determine the kinds and qualities of the produce, which may be ascertained by cooking in different ways, and thus their relative value for the table, &c. fixed. The third year the tubers will have attained their ordinary full size and excellence, which they will maintain for a number of years, when they again require a renewal. Hitherto there has been no difficulty among us of procuring new varieties from abroad, or renewing our old kinds of the potato; but it might be well for our gardeners, and even our farmers, occasionally to adopt the English mode of preserving this valuable plant in perfection, or even furnishing specimens superior to any now cultivated, since it is well known that the most valuable of our varieties are not like the original stock, but are the results of careful cultivation.

W. G.

(From Goodsell's Genesee Farmer.)

ON THE CULTIVATION OF VINES, (Cucurbitaciae.)

Many people find much difficulty in raising vines, owing to the depredation of the black flea or the striped bug. As soon as vegetation becomes visible, thousands of these insects will gather on the tender plants, and often cut them down as soon as they appear above the surface of the hills.

By following the subsequent rules, you may easily cultivate melons, cucumbers, &c. without much difficulty. Soon after warm weather has commenced, select a rich, warm, dry place in your garden or field; plough or spade it deep, at the same time incorporating the soil with well decayed manure; sheep manure is the best.

Lay out your ground in hills four and a half feet asunder, each way, raising them considerably above the natural surface of the ground, with the hills inclined towards the south. Having prepared your hills you are ready to commence planting. Distribute no less than ten or fifteen seeds in a hill, covering them one quarter of an inch in depth. As soon as the plants have made their appearance, take of ashes or soot two parts, plaster one part, pulverized charcoal one part, mix these ingredients together, until the mixture is well incorporated. With this composition enter your garden or field in the morning, while the dew is on, and with a quantity in your hand throw it over the plants, dusting them as much as possible, in order to suffocate the insects, taking particular care to dust the under part of the leaves.

By following these directions you will have the pleasure of seeing your plants in a thriving condition, and in a few days entirely out of the way of these troublesome insects.

As soon as the plants begin to interfere with one another, commence thinning them out. Pull out all but two or three in a hill, leaving those that look the most promising. There are many persons, who leave no less than half a dozen in a hill — this is a *mistaken notion;* for I am confident, that could you rest assured that no worms would molest the roots, it would be better to pull all out but one; and I am fully persuaded, too, that you would gather more fruit from the vines where there was but one or two plants in a hill, than you would, were you to leave half a dozen.

Were you to leave too many, the vines will becomes so thick that when they set for bearing, most of the fruit will decay before it comes to any maturity. MILES BEACH.

New London, March 20, 1834.

GREAT HEIFER.—Mr Oliver Shaw of Heath, slaughtered a two years old Heifer lately, weighing as follows.

Quarters	589 lbs.
Tallow	52
Hide	75
Total	716

The Vermont Phœnix tells of a two year old heifer slaughtered in Brattleboro' by Mr Elias W. Fisher, but it comes a good deal behind Mr Shaw's. The quarters of the Brattleboro' heifer weighed 527 lbs. hide 60, tallow 32—total 619.—*Greenfield Mercury.*

RAIL ROADS IN CITIES.—The Philad. U. S. Gazette states that on Thursday evening the Common Council of that city, by a large majority, passed a bill authorizing the construction of a Rail Road down Market street. A Rail Road runs directly through Schenectady, steam and all. A Rail Road also passes through Baltimore. Yet we should not think well of a Rail Road passing so crowded a thoroughfare as Broadway or Chatham street.

BRIGHTON MARKET,—Monday, Jan. 11, 1836.

Reported for the Daily Advertiser & Patriot.

At Market 610 Beef Cattle, 720 Sheep, and 140 Swine.

Prices—*Beef Cattle*—Sales were generally made to correspond with a like quantity last week; more of the best qualities were at market, consequently more brought our highest quotations. We notice a few very fine taken for 36s, and a few at 34s 6d, we quote prime at 31s 6d a 33s; good 28s 6d a 30; small cattle 21s a 25 6d.

Barrelling Cattle.—We notice no lots taken for the express purpose of barrelling.

Sheep—We notice lots taken at 15s, 18s, 24s, 30s, 33s and 36s.

Swine—Those at market were taken from the neighboring slaughter yards: few sales only were effected.

SPLENDID FLOWER BULBS FOR WINTER.

WILL BLOOM IN THE HOUSE.

Hyacinths—
Boquet Tendre,
Groot Voorst,
Parquin,
Grand Monarche,
Orondates,
Voltaire,
Temple of Apollo,
Lord Wellington,
Madam Zoutman,
Madam Van Murkeys,
Gloria Florum,
L'Ami Du Cœur,
Pyramides des Roses.
200 Assorted Double,
200 Assorted Single, &c. &c.

Amaryllis (*most splendid flower.*)
Gladiolus Pseittieinna.
Polyanthus Narcissus.
Crocus.
Double Jonquills.
Single do.
Crown Imperial (*of varieties.*)
Frittellera.
Colchicum.
Cyclamens.
Tulips, (assorted,) &c. &c.

Also—A large collection of splendid varieties of Flower Seeds.

These are to be received by the *Vanella*, from Holland, and will be ready for sale as soon as she comes up from Gloucester, where she put in.

It being late in the season, and having a very large collection on hand, the above will be sold unusually low.

GEO. C. BARRETT,

TEAZLE SEED.

Just received 50 lbs. prime Teazle Seed. The importance of this crop merits the attention of agriculturists.

Dec. 16. G. C. BARRETT.

NEW VARIETY OF BARLEY.

For sale a few bushels of superior German Barley, without hulls, weighs 60 lbs. to the bushel, and will be found a great acquisition to the cultivator. Price $1 per peck.

Jan. 6 G. C. BARRETT.

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

New York—G C. Thorburn, 11 John-street.
Albany—Wm. Thorburn, 347 Market-street.
Philadelphia—D. & C. Landreth, 85 Chesnut-street.
Baltimore—Publisher of American Farmer.
Cincinnati—S. C. Parkhurst, 23 Lower Market-street.
Flushing, N Y.—Wm. Prince & Sons, Prop. Lin. Bot. Gar.
Middlebury, Vt.—Wight Chapman, Merchant.
West Bradford, Mass.—Hale & Co. Booksellers.
Taunton, Mass.—Sam'l O. Dunbar, Bookseller.
Hartford—Goodwin & Co. Booksellers.
Newburyport—Ebenezer Stedman, Bookseller.
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St. Louis—Geo. Holton

PRINTED BY TUTTLE, WEEKS & DENNETT,
No. 8, School Street.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

			FROM	TO
Apples, Russetts and Baldwins.		barrel	1 50	2 00
Beans, white,		bushel	1 50	1 75
Beef, mess,		barrel	10 50	11 00
Cargo, No. 1.		"	8 50	9 00
prime,		"	7 00	7 25
Beeswax, (American)		pound	25	27
Butter store, No. 1,		"	17	20
Cheese, new milk,		"	8	9
Feathers, northern, geese,		"	46	50
southern, geese,		"	42	45
Flax, American,		"	9	10
Fish, Cod,		quintal	2 75	2 83
Flour, Genesee, cash		barrel	7 62	7 75
Baltimore, Howard street,		"	7 62	7 75
Baltimore, wharf,		"	7 50	7 62
Alexandria,		"	7 52	7 75
Grain, Corn, northern yellow		bushel	1 06	1 09
southern flat yellow		"	1 09	1 10
white,		"	91	94
Rye, northern,		"	1 05	1 06
Barley,		"	90	1 00
Oats, northern, (prime)		"	61	62
Hay, best English, per ton of 2000 lbs			22 00	25 00
eastern screwed,		"	21 00	23 00
hard pressed,		"	21 00	23 00
Honey,		gallon		
Hops, 1st quality		pound	13	14
2d quality		"	10	11
Lard, Boston, 1st sort,		"	12	13
southern, 1st sort,		"	11	12
Leather, slaughter, sole,		"	19	20
do. upper,		"	12	14
dry hide, sole,		"	19	21
do. upper,		"	18	20
Philadelphia, sole,		"	27	29
Baltimore, sole,		"	25	27
Lime, best sort,		cask	1 08	1 12
Plaster Paris, per ton of 2200 lbs.			3 12	3 37
Pork, Mass. inspect. extra clear,		barrel	20 00	21 00
Navy, mess,		"		
bone, middlings, scarce,		"		
Seeds, Herd's Grass,		bushel	2 25	2 50
Red Top,		"	75	90
Red Clover, northern,		pound	10	11
Silk Cocoons, (American)		bushel		
Tallow, tried,		cwt.	8 50	9 00
Wool, prime, or Saxony Fleeces,		pound	65	75
American, full blood, washed,		"	55	65
do. 3-4ths do.		"	55	58
do. 1-2 do.		"		50
do. 1-4 and common		"	40	45
Native washed		"	38	60
Northern pulled.	Pulled superfine,	"	58	60
	1st Lambs,	"	50	53
	2d do.	"	40	41
	3d do,	"	30	35
	1st Spinning,	"	48	50

Southern pulled wool is generally 5 cts. less per lb.

PROVISION MARKET.

RETAIL PRICES.

Hams, northern,	pound	12	12
southern, and western,	"	11	12
Pork, whole hogs,	"	6	7
Poultry,	"	10	14
Butter, (tub)	"	18	20
lump	"	22	25
Eggs,	dozen	25	25
Potatoes,	bushel	30	40
Cider,	barrel	1 25	1 75

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.